

WHAT IS CLAIMED IS:

1. A method of measuring luminance of an image display apparatus having an adjacently disposed plurality of pixels for displaying red, blue and green arranged in matrix, comprising the steps of:

illuminating the pixels in a time-sharing basis for each color,
and

measuring luminance of the illuminated pixels for each illumination.

2. A method of measuring luminance of an image display apparatus according to Claim 1,

wherein measurement of luminance of the pixel is performed with a luminance measuring unit having a plurality of optical sensors arranged in matrix by the steps of:

dividing a display area of the image display apparatus into a plurality of blocks corresponding to measuring area of the luminance measuring unit, each including a plurality of pixels,
and

moving the luminance measuring unit on each divided block for measuring luminance of each pixel.

3. A method of measuring luminance of an image display apparatus according to Claim 2, wherein a plurality of the aforementioned luminance measuring units are disposed on the image display apparatus and luminance of the pixels are simultaneously

measured by the plurality of luminance measuring units.

4. A method of measuring luminance of an image display apparatus according to Claim 2, wherein the pixels included in each divided block are simultaneously illuminated in color-to-color basis and luminance of the pixels in each color is measured.

5. A method of manufacturing of an image display apparatus having an adjacently disposed plurality of pixels for displaying red, blue and green arranged in matrix, comprising the steps of:

illuminating the pixels in a time-sharing basis for each color and measuring luminance of the illuminated pixels for each illumination; and

adjusting luminance of each pixel based on the result of measurement in the measuring step.

6. A method of adjusting characteristics of an image display apparatus comprising a multi-electron source having a plurality of electron-emitting device arranged on a substrate, and a fluorescent member emitting light by being irradiated by emitted electrons from the electron-emitting device, comprising the steps of:

dividing a display area of the image display apparatus into a plurality of areas and measuring luminance of each divided area sequentially; and

shifting the electron-emitting characteristics of each electron-emitting device to a predetermined target value by

applying a characteristic shifting voltage based on the result of the step of measuring,

wherein the step of measuring includes the steps of:

allowing the electron-emitting devices that are not adjacent to each other in the divided area to emit electrons simultaneously, and

measuring luminance of the fluorescent member that emits light upon irradiation of the emitted electrons.

7. A method of adjusting characteristics of an image display apparatus according to Claim 6, wherein the electron-emitting devices that are not adjacent to each other in the divided area are devices selected from the electron-emitting devices that emit electrons to the fluorescent member of any one of the colors selected from the red fluorescent material, the green fluorescent material, and the blue fluorescent material.

8. A characteristic adjusting apparatus of an image display apparatus having a plurality of electron-emitting devices disposed on a substrate, comprising:

a selecting and driving unit for selecting and driving a plurality of electron-emitting devices that are not adjacent to each other in a predetermined area on a display unit of the image display apparatus simultaneously,

a timing signal generating unit being synchronous with a driving time of the selecting and driving unit,

a light-emitting unit for emitting light by the emitted

electrons from the electron-emitting devices,

at least one luminance measuring unit for taking a luminance signal from the light-emitting unit synchronously with outputs from the timing signal generating unit,

a calculating unit for obtaining light-emitting characteristics of selected devices on the basis of a signal obtained from the luminance measuring unit and information of selection of the plurality of devices from the driving unit individually,

a storing unit for storing an output from the calculating unit;

a voltage applying unit for applying a characteristic sifting voltage to the plurality of selected devices; and

at least one moving unit for relatively moving the luminance measuring unit and the display panel.